

INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 2004/000538

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: H05K 3/32, H05K 3/46

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: H05K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5042145 A (JAN P. BOUCQUET), 27 August 1991 (27.08.1991), column 3, line 50 - column 4, line 35, figures 6-9 --	1,10-11
X	EP 0774888 A2 (MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD), 21 May 1997 (21.05.1997), column 8, line 17 - line 27; column 7, line 29 - line 39, figures 1,8,12-14 --	1,8,12-14
A	EP 1156525 A1 (IBIDEN CO., LTD.), 21 November 2001 (21.11.2001), [0013]-[0030] --	1-14

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

31 January 2005

Date of mailing of the international search report

01-02-2005

Name and mailing address of the ISA/

Swedish Patent Office

Box 5055, S-102 42 STOCKHOLM

Facsimile No. +46 8 666 02 86

Authorized officer

Anna Flodman/MN

Telephone No. +46 8 782 25 00

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Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/FI 2004/000538

US	5042145	A	27/08/1991	AT	93075	T	15/08/1993
				AU	617867	B	05/12/1991
				AU	646284	B	17/02/1994
				AU	4142789	A	05/04/1990
				AU	8353191	A	07/11/1991
				AU	8583691	A	12/12/1991
				BE	1002529	A	12/03/1991
				DE	68908341	D,T	13/01/1994
				EP	0367311	A,B	09/05/1990
				SE	0367311	T3	
				ES	2044061	T	01/01/1994

EP	0774888	A2	21/05/1997	CN	1094717	B	20/11/2002
				CN	1156949	A	13/08/1997
				DE	69626747	D,T	04/09/2003
				JP	9199824	A	31/07/1997
				US	6324067	B	27/11/2001

EP	1156525	A1	21/11/2001	US	6534723	B	18/03/2003
				CN	1338117	T	27/02/2002
				JP	2001217356	A	10/08/2001
				JP	2001217543	A	10/08/2001
				JP	2001217544	A	10/08/2001
				JP	2001217549	A	10/08/2001
				JP	2001217550	A	10/08/2001
				TW	512653	B	00/00/0000
				WO	0139267	A	31/05/2001

US	20020053465	A1	09/05/2002	JP	2002094200	A	29/03/2002
				US	20040142161	A	22/07/2004

US	4993148	A	19/02/1991	JP	63182570	U	24/11/1988
				JP	63241503	A	06/10/1988
				US	5081562	A	14/01/1992
				US	5173844	A	22/12/1992
				JP	2624671	B	25/06/1997
				JP	63182571	U	24/11/1988
				JP	63242133	A	07/10/1988
				JP	63182572	U	24/11/1988
				JP	63241653	A	06/10/1988
